

WHAT IS CLAIMED IS:

1. In a system in which a print job submitting device and a plurality of print devices are connected via a network, a print job management system that is disposed corresponding to each of said print devices and manages print jobs, said print job management system comprising:

a job storage unit that, when a request to execute a two-way type print job, which is to be executed in connection with a two-way communication between said print job submitting device and the print device, is received from said print job submitting device, stores predetermined data for job-control that is different from said print job itself;

a print job execution unit that, when it is determined that a timing of printing said two-way type print job is reached according to said predetermined data, establishes a two-way communication between said print job submitting device and said print device and thereby executes printing;

a storage location change unit that, when an instruction for moving said print job to another print device is input, changes a storage location of said predetermined data to another print job management system that corresponds to said another print device; and

a notification unit that provides a notification of change in the storage location to said print job submitting device.

2. A print job management system according to Claim 1, wherein said storage location change unit moves said predetermined data to said another print job management system.

3. A print job management system according to Claim 1, wherein said storage location change unit deletes said predetermined data

and causes said print job submitting device to resubmitsaid print job to said another print device.

4. A print job management system according to Claim 1, wherein  
5 said predetermined data comprises a part of data that constitutes said print job.

5. A print job management system according to Claim 1, further comprising:  
10 a hold instruction unit that, at the time of receiving the request to execute said two-way type print job, causes said print job submitting device to put the transmission of said print job on hold.

6. A print job management system according to Claim 1, wherein  
15 said notification of change includes:  
information that specifies said another print device; and  
information that represents a new storage location of said predetermined data.

7. In a system in which a print job submitting device and a plurality  
20 of print devices are connected via a network, a print job management system that is disposed corresponding to each of said print devices and manages print jobs, said print job management system comprising:

a job storage unit that, when a request to execute a two-way type  
25 print job, which is to be executed in connection with a two-way communication between said print job submitting device and the print device, is received from said print job submitting device, stores predetermined data for job control that is different from said print job itself;

a print job execution unit that, when it is determined that a timing of  
30 printing said two-way type print job is reached according to said

predetermined data, establishes a two-way communication between said print job submitting device and said print device and thereby executes printing; and

5 a change notification unit that, when an instruction for changing a storage location of said two-way type print job is received from another print job management system that received a request to print said two-way type print job from said print job submitting device, stores said predetermined data in said job storage unit and provides a notification of change in the storage location to said print job submitting device that submitted said  
10 two-way type print job is submitted.

8. A print job management system according to Claim 7, wherein information on change of the storage location at least includes information for specifying said print job submitting device and instruction  
15 for changing the storage location; and

wherein by means of said notification of change, said change notification unit requires said print job submitting device that is specified by said information on change of the storage location to resubmitsaid print job.

20 9. A print job management system according to Claim 7, wherein the information on change of the storage location comprises said predetermined data.

25 10. A print job management system according to Claim 7, wherein said predetermined data comprises a part of data that constitutes said print job.

11. A print job management system according to Claim 7, further comprising:  
30 a hold instruction unit that, at the time of receiving the request to

execute said two-way type print job, causes said print job submitting device to put the transmission of said print job on hold.

12. A print job management system according to Claim 7, wherein  
5 said notification of change includes:

information that specifies said another print device; and

information that represents a new storage location of said  
predetermined data.

10 13. A print job management system that manages print jobs in a system in which a print job submitting device and a plurality of print devices are connected via a network, wherein

a spooler is disposed corresponding to each of said print devices; and

wherein when a request to execute a two-way type print job, which is

15 to be executed in connection with a two-way communication between said print device and said print job submitting device, is received, said spooler stores predetermined data for job control that is different from said print job itself,

said print job management system comprising:

20 a move detection unit that detects a move of said predetermined data between said respective spoolers; and

a change notification unit that, when said move is detected, provides a notification of change in storage location to said print job submitting device.

25 14. A print job management system according to Claim 13, wherein said predetermined data comprises a part of data that constitutes said print job.

30 15. A print job management system according to Claim 13, further

comprising:

a hold instruction unit that, at the time of receiving the request to execute said two-way type print job, causes said print job submitting device to put the transmission of said print job on hold.

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16. A print job management system according to Claim 13, wherein said notification of change includes:

information that specifies said another print device; and

10 information that represents a new storage location of said predetermined data.

17. In a network to which a plurality of print devices are connected, a print job submitting device that submits a print job to one of said print devices, wherein

15 in said network, a print job management system for controlling print job execution is disposed corresponding to each of said print devices,

said print job submitting device comprising:

a communication establishment unit that, in execution of a two-way type print job that requires a two-way communication with said print device  
20 at the time of printing, establishes a two-way communication with said print device according to an instruction from said print job management system; and

a communication switch unit that, when a notification of change, which represents that the print device for print job execution is changed, is  
25 received from one of said print job management systems, switches the destination of said two-way communication to a new print device.

18. In a system in which a print job submitting device and a plurality of print devices are connected via a network, a print job  
30 management method in a print job management system that is disposed

corresponding to each of said print devices, said print job management method comprising the steps of:

(a) when a request to execute a two-way type print job, which is to be executed in connection with a two-way communication between said print job submitting device and the print device, is received from said print job  
5 submitting device, storing predetermined data for job-control that is different from said print job itself;

(b) when it is determined that a timing of printing said two-way type print job is reached according to said predetermined data, establishing a  
10 two-way communication between said print job submitting device and said print device and thereby executing printing;

(c) when an instruction for moving said print job to another print device is input, changing a storage location of said predetermined data to another print job management system that corresponds to said another print  
15 device; and

(e) providing a notification of change in the storage location to said print job submitting device.

19. In a system in which a print job submitting device and a  
20 plurality of print devices are connected via a network, a print job management method in a system that is disposed corresponding to each of said print devices and manages print jobs, said print job management method comprising the steps of:

(a) when a request to execute a two-way type print job, which is to be  
25 executed in connection with a two-way communication between said print job submitting device and the print device, is received from said print job submitting device, storing predetermined data for job-control that is different from said print job itself;

(b) when it is determined that a timing of printing said two-way type  
30 print job is reached according to said predetermined data, establishing a

two-way communication between said print job submitting device and said print device and thereby executing printing; and

(c) when an instruction for changing a storage location of said two-way type print job is received from another print job management system that received a request to print said two-way type print job from said print job submitting device, storing said predetermined data and providing a notification of change in the storage location to said print job submitting device that submitted said two-way type print job.

20. A print job management method that manages print jobs in a system in which a print job submitting device and a plurality of print devices are connected via a network, wherein

a spooler is disposed corresponding to each of said print devices; and

wherein when a request to execute a two-way type print job, which is to be executed in connection with a two-way communication between said print device and said print job submitting device, is received, said spooler stores predetermined data for job control that is different from said print job itself,

said print job management method comprising the steps of:

(a) detecting a move of said predetermined data between said respective spoolers; and

(b) when said move is detected, providing a notification of change in storage location to said print job submitting device.

21. In a network to which a plurality of print devices and a print job submitting device are connected, a method of printing that controls said print job submitting device and thereby executes a two-way type print job, said two-way type print job requiring a two-way communication between the print device and said print job submitting device, wherein

in said network, a print job management system for controlling print

job execution is disposed corresponding to each of said print devices,

said method of printing comprising the steps of:

(a) in execution of said two-way type print job, establishing a two-way communication with said print device according to an instruction  
5 from said print job management system; and

(b) when a notification of change, which represents that the print device for print job execution is changed, is received from one of said print job management systems, switching the destination of said two-way communication to a new print device.

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22. In a system in which a print job submitting device and a plurality of print devices are connected via a network, a recording medium that is recorded with a computer program for causing a print job management system that is disposed corresponding to each of said print  
15 devices to manage print jobs, said computer program causing a computer to implement the functions of:

when a request to execute a two-way type print job, which is to be executed in connection with a two-way communication between said print job submitting device and the print device, is received from said print job  
20 submitting device, storing predetermined data for job-control that is different from said print job itself;

when it is determined that a timing of printing said two-way type print job is reached according to said predetermined data, establishing a two-way communication between said print job submitting device and said  
25 print device and thereby executing printing;

when an instruction for moving said print job to another print device is input, changing a storage location of said predetermined data to another print job management system that corresponds to said another print device;  
and

30 providing a notification of change in the storage location to said print



job submitting device.

23. In a system in which a print job submitting device and a plurality of print devices are connected via a network, a recording medium  
5 that is recorded with a computer program for causing a print job management system that is disposed corresponding to each of said print devices to manage print jobs, said computer program causing a computer to implement the functions of:

when a request to execute a two-way type print job, which is to be  
10 executed in connection with a two-way communication between said print job submitting device and the print device, is received from said print job submitting device, storing predetermined data for job-control that is different from said print job itself;

when it is determined that a timing of printing said two-way type  
15 print job is reached according to said predetermined data, establishing a two-way communication between said print job submitting device and said print device and thereby executing printing;

when an instruction for changing a storage location of said two-way  
20 type print job is received from another print job management system that received a request to print said two-way type print job from said print job submitting device, storing said predetermined data and providing a notification of change in the storage location to said print job submitting device that submitted said two-way type print job.

25 24. A recording medium that is recorded with a computer program for managing print jobs in a system in which a print job submitting device and a plurality of print devices are connected via a network, wherein

a spooler is disposed corresponding to each of said print devices; and  
wherein when a request to execute a two-way type print job, which is  
30 to be executed in connection with a two-way communication between said

print device and said print job submitting device, is received, said spooler stores predetermined data for job control that is different from said print job itself,

said computer program causing a computer to implement the  
5 functions of:

detecting a move of said predetermined data between said respective spoolers; and

when said move is detected, provides a notification of change in storage location to said print job submitting device.

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25. In a network to which a plurality of print devices and a print job submitting device are connected, a recording medium that is recorded with a computer program for executing a two-way type print job by said print job submitting device, said two-way type print job requiring a two-way  
15 communication between the print device and said print job submitting device, wherein

in said network, a print job management system for controlling print job execution is disposed corresponding to each of said print devices,

said computer program causing a computer to implement the  
20 functions of:

in execution of said two-way type print job, establishing a two-way communication with said print device according to an instruction from said print job management system; and

when a notification of change, which represents that the print device  
25 for print job execution is changed, is received from one of said print job management systems, switching the destination of said two-way communication to a new print device.